

This listing of claims will replace all prior versions, and listings, of claims in this application.

Listing of Claims:

1. (original) A set of instruments (10, 70) for implanting a knee prosthesis (1), the set including amongst others, a first instrument (10) for distracting the knee, which instrument comprises firstly two branches (13, 14) movable relative to each other and respectively provided at their distal ends with means (26) for pressing against the tibia and with means (28) for pressing against the femur, and secondly means (16) for moving the distal ends of the branches mutually apart, the set being characterized in that the means (26) for pressing against the tibia define a tibial bearing surface (26A) that is substantially plane, and in that the distraction instrument (10) is further provided with a device (12) serving to locate, on at least one of the medial and lateral sides of the femur (F), the position for implanting at least one extramedullary pin (60; 61; 62) or the like in a direction (A; B; C) lying in a plane (P_F; P_E) that is substantially parallel to the plane tibial bearing surface (26A) and that is situated at an adjustable distance (K) from said tibial bearing surface.

2. (original) A set of instruments according to claim 1, characterized in that the locator device (12) is suitable, both on the medial side and on the lateral side of the femur (F), for locating the positions for implanting at least one pair of extramedullary pins (60; 61; 62) or the like along respective directions (A; B; C) lying in a common plane (P_F; P_E) that is substantially parallel to the plane tibial surface (26A) and

that is situated at an adjustable distance (K) from said bearing surface.

3. (previously presented) A set of instruments according to claim 1, characterized in that the locator device (12) is suitable, on a given side of the femur, for locating the positions for implanting two extramedullary pins or the like (60, 61) in respective directions (A, B) lying in a common plane (P_F) substantially parallel to the plane tibial bearing surface (26A).

4. (previously presented) A set of instruments according to claim 1, characterized in that the locator device (12) includes extra-femoral jig means (43) for defining the directions (A; B; C) along which the pins (60; 61; 62) or the like are implanted, these jig means (43) defining, for example, extramedullary guide holes (46 to 50, 46' to 50') for means for forming cavities for receiving the pins or the like.

5. (original) A set of instruments according to claim 4, characterized in that the distraction instrument (10) includes a rod (20) secured to the branch (13) provided with the means (26) for pressing against the tibia, and extending lengthwise along a direction (X-X) that is substantially perpendicular to the plane containing the plane tibial bearing surface (26A), and in that the locator device (12) includes moving connection means (30, 41, 42, 44, 45) between said rod and the jig means (43).

6. (original) A set of instruments according to claim 5, characterized in that said moving connection means comprise first means (30) for moving the jig means (43) relative to the rod (20) in translation along said rod, and in that the locator device (12) includes adjustment and locking means (40, 36) for adjusting and locking the position in translation of the jig means.

7. (original) A set of instruments according to claim 6, characterized in that the distraction instrument (10) is provided with means for measuring the position in translation of the jig means (43) relative to the rod (20), e.g. in the form of graduations carried by said rod.

8. (previously presented) A set of instruments according to claim 6, characterized in that said adjustment means (40) comprise a feeler (40a) for feeling the anterior cortex (F_c) of the femur (F).

9. (previously presented) A set of instruments according to claim 5, characterized in that the moving connection means comprise second means (41) for moving the jig means (43) relative to the rod (20) in pivoting about the longitudinal axis (X-X) of said rod.

10. (previously presented) A set of instruments according to claim 5, characterized in that the moving connection means include third means (42, 44) for moving the jig means (43) relative to the rod (20) in two directions (F_3 , F_4) that are substantially perpendicular to the longitudinal direction (X-X) of the rod and substantially perpendicular to each other.

11. (previously presented) A set of instruments according to claim 5, characterized in that it includes an extramedullary sight part (55) for sighting the head of the femur and adapted to extend substantially parallel to the longitudinal direction (X-X) of the rod (20).

12. (previously presented) A set of instruments according to claim 1, characterized in that the means (28) for pressing against the femur define a convex elongate surface (28A) for pressing against the femur between the condyles thereof, and having a transverse dimension (\underline{e}) that is preferably less than about 9 mm.

13. (previously presented) A set of instruments according to claim 1, characterized in that it includes a second instrument (70) for cutting the femur, fitted with means (78, 79) for positioning the instrument relative to the femur (F), that are adapted to co-operate with projecting portions of pins or the like (60 to 62) implanted in the femur along directions (A, B, C) defined by the locator device (12) of the distraction instrument (10), said projecting portions projecting from the medial and lateral sides of the femur (F).

14. (original) A set of instruments according to claim 13, characterized in that the cutter instrument (70) defines at least a plane posterior cutting slot (73) and a plane distal cutting slot (71), and in that the positioning means comprise both a first pair of bearing surfaces (78) for bearing against some (60, 61) of said pins or the like (60 to 62), substantially parallel to the posterior cutting slot (73), and a second pair of bearing surfaces (79) for bearing against others (62) of said pins or the like, substantially parallel to the distal cutting slot (71), the distance (Δ) between said first pair of bearing surfaces (78) and the plane of the posterior cutting slot (73) being substantially equal to the distance (Δ) between said second pair of bearing surfaces (79) and the plane of the distal cutting slot (71).

15. (new) A method for implanting a knee prosthesis (1), the method comprising the following successive steps:

- resecting the top end of the tibia (T);
- using a distraction instrument (10) to distract the knee joint in bending at 90° and to verify ligamentary equilibrium between the medial and lateral sides of the knee, in particular

by visually comparing the medial and lateral spaces behind the condyles;

- using the same distraction instrument (10) to distract the knee joint in extension and verifying ligamentary equilibrium between the medial and lateral sides of the knee, in particular by using an extramedullary sight part (55) for sighting the head of the femur, and fitted on said instrument;

- using a locator device (12) carried by the distraction instrument (10), and while the knee in flexion is distracted by said instrument, locating at least on one of the medial and lateral sides of the femur (F) the position for implanting at least one extramedullary pin or the like (60; 61) in a direction (A; B) lying in a plane (P_F) substantially parallel to the tibial resection plane (T_A), substantially perpendicular to the axis of ligamentary tension and situated at a given distance (K) from said surface, which distance is adjusted relative to the position of the anterior cortex (F_c) of the femur (F);

- using the same locator device (12) carried by the instrument (10) with the knee in extension and distracted by said instrument to locate at least on one of the medial and lateral sides of the femur (F) the position for implanting at least one extramedullary pin or the like (62) in a direction (C) lying in a plane (P_E) substantially parallel to the tibial resection plane (T_A), substantially perpendicular to the axis of ligamentary tension and situated at said adjusted distance (K) from said surface;

- positioning a cutter instrument (70) on the femur (F) by co-operation between said cutter instrument and projecting portions of the extramedullary pins (60 to 62) implanted in the femur in the previously-located positions, and portions projecting from the medial and lateral sides of the femur (F); and

- making cuts in the femur, in particular a distal cut (F_{AD}) and a posterior cut (F_{AP}).

16. (new) A method according to claim 15, wherein the steps of verifying ligamentary equilibrium in flexion and in extension, and the steps of locating the implantation positions in flexion and in extension are performed with the kneecap of the patient generally in place.